

IN THE CLAIMS:

1. **(Currently amended)** A support structure having a seat surface {2}, particularly for bicycles and other pedal operated machines, comprising a substantially rigid or semirigid frame {3}, means {4} for securing said frame {3} to the bicycle or a pedal operated machine, a yieldable pad {7} secured to the top face of said frame {3}, a covering layer {8} superimposed to the yieldable pad {7}, said frame {3} has one or more differential rigidity portions {11, 11'} adapted to facilitate the pedaling motion, said differential rigidity portions {11, 11'} being located in the proximity of an outer peripheral edge {13} of said frame {3}, characterized in that said frame {3} has at least one recess {12} along its outer peripheral edge {13}, each of said differential rigidity portions {11, 11'} comprising a plurality of elongated projections {14} extending outwards from their respective recesses {12} formed in said frame {3}.

2. **(Currently amended)** Support structure as claimed in claim 1, characterized in that wherein said projections {14} have free ends {16}.

3. **(Currently amended)** Support structure as claimed in claim 2, characterized in that wherein said projections {14} of each of said differential rigidity portions {11, 11'} extend substantially parallel to one another so as to form a comblike structure.

4. **(Currently amended)** Support structure as claimed in claim 3, characterized in that wherein each of said projections {14} of each of said differential rigidity portions {11, 11'} is located at a predetermined distance (H) from the other projections adjacent thereto, which distance may vary for each projection {14}.

5. **(Currently amended)** Support structure as claimed in claim 4, characterized in that wherein each of said differential rigidity portions {11, 11'} comprises filling elements {15} within the spaces between said projections {14}.

6. **(Currently amended)** Support structure as claimed in claim 5, characterized in that wherein the base material of said filling elements {15} is a plastic and/or elastomeric material.

7. **(Currently amended)** Support structure as claimed in claim 6, characterized in that wherein the free ends {16} of said projections {14} are substantially aligned to define an edge {17} which is connected with said outer peripheral edge {13} of said frame {3}.

8. **(Currently amended)** Support structure as claimed in claim 1, characterized in that wherein each of said projections {14} has a flexural and shear strength depending on the load direction.

9. **(Currently amended)** Support structure as claimed in claim 8, characterized in that wherein each of said projections {14} has such a cross section and shape as to provide a predetermined flexural and shear strength, relative to load activity both substantially normal to said seat surface {2}, and along a plane substantially parallel to the seat surface {2}.

10. **(Currently amended)** Support structure as claimed in claim 1, characterized in that wherein said projections {14} are monolithic with said frame {3}.

11. **(Currently amended)** Support structure as claimed in one or more of the preceding claims, characterized in that claim 1, wherein said

frame {3} has a laterally widened rear portion {9} for supporting the buttocks of a user and an elongated front portion {10} defining a longitudinal axis (L).

12. **(Currently amended)** Support structure as claimed in claim 1, ~~characterized in that wherein~~ it comprises at least one pair of said differential rigidity portions {11}, symmetrically located with respect to said longitudinal axis (L).

13. **(Currently amended)** Support structure as claimed in claim 12, ~~characterized in that wherein~~ said symmetric pair of differential rigidity portions {11} is located at the sides of said widened rear portion {9} and/or at the junction between said widened rear portion {9} and said elongated front portion {10}.

14. **(Currently amended)** Support structure as claimed in claim 13, ~~characterized in that wherein~~ at least one of said differential rigidity portions {11'} is located on the rear edge {18} of said widened rear portion {9}.

15. **(Currently amended)** Support structure as claimed in ~~one or more of the preceding claims, characterized in that claim 1, wherein~~ said yieldable pad {7} and/or said covering layer {8} have such an extension as to wholly or partly cover said differential rigidity portions {11, 11'}.